

Accepted Manuscript

A central-upwind scheme with artificial viscosity for shallow-water flows in channels

Gerardo Hernandez-Duenas, Abdelaziz Beljadid

PII: S0309-1708(16)30299-8
DOI: [10.1016/j.advwatres.2016.07.021](https://doi.org/10.1016/j.advwatres.2016.07.021)
Reference: ADWR 2668



To appear in: *Advances in Water Resources*

Received date: 10 March 2016
Revised date: 4 July 2016
Accepted date: 30 July 2016

Please cite this article as: Gerardo Hernandez-Duenas, Abdelaziz Beljadid, A central-upwind scheme with artificial viscosity for shallow-water flows in channels, *Advances in Water Resources* (2016), doi: [10.1016/j.advwatres.2016.07.021](https://doi.org/10.1016/j.advwatres.2016.07.021)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- A scheme for shallow-water flows in channels with artificial viscosity is proposed.
- The central-upwind scheme enjoys well-balance and positivity-preserving properties.
- The non-oscillatory scheme uses high-order reconstructions of cell interfaces.
- The computational cost is low compared to the use of nonlinear limiters.
- A good agreement of numerical results and experimental data is observed.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/6380532>

Download Persian Version:

<https://daneshyari.com/article/6380532>

[Daneshyari.com](https://daneshyari.com)